IT Service Modeling (CMDB/CMS & DDM) in the Age of Cloud and Containers

Interview with Gustav van Vuuren, CTO at AppCentrix

AppCentrix is a South African managed services provider supporting more than 45 data centers, 6,000 sites, and 500,000,000 metrics per day. Its stated mission is to help its clients, "gain competitive advantage through data analytics and intelligent monitoring, whilst continuing to reduce costs and realize efficiencies."

What does your role as AppCentrix CTO entail?

A big part of what I do entails identifying technologies that we can utilize to enable our AppCentrix managed services. That means focusing on analytics and monitoring, as these are our core disciplines. I have a task team consisting of a handful of specialists who assist me in the evaluation process, to see how a given solution will measure up, how our toolsets can be integrated, and how they can best be leveraged to derive the most out of the vendors selected.

Overall, we have about fifty people in our IT organization, but we support many hundreds more across our customer base, and many thousands if you include end users. We are managing hundreds of thousands of devices. Currently, our customer base is centered in South Africa, but we are expanding globally.

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Can you share more about your approach to analytics and intelligent monitoring?

We start off seeking to understand all of a customer's IT and application infrastructure, not just a segment of it. Our initial purpose

is to do full asset discovery, since everything is connected or related. This includes public cloud, such as AWS and Azure, including support for containers and microservices and what the customer may be hosting on-prem.

Once we have the total picture, we begin to prioritize devices based on business and technical factors, as we do dependency mapping and group devices with associated end-user applications. What we offer goes beyond traditional infrastructure management and/or application performance management (APM). Instead, we take a hybrid approach that combines everything together—full stack plus applications. Most of the analysis is processed in ScienceLogic.

How do your services integrate or complement ITSM investments, including CMDBs?

Our role is very complementary. We are not trying to replace the ServiceNows or Remedys of the world, but we do take ownership of the initial metric data, as we process it into event data, qualifying the data to an actionable item where we ultimately generate incidents or problems. We provide complete incident-to-ticket integration, so we can take ownership of the entire event management process and initiate the relevant actions.

In terms of CMDB or CMS integrations, we seldom take the master role, but we can complement insights into what our customers have, including assets. For instance, we had a customer paying one of their service providers for an SLA that assumed they had 3,000 devices across their distributed environment. We looked down the network path for every site and found only 2,200 devices. That highlighted an inconsistency in their CMDB, which hadn't been kept up to date.



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How did you come to select ScienceLogic?

We first started to conceptualize AppCentrix about fifteen years ago, to focus on what customers really needed in terms of value that they weren't currently getting when onboarding monitoring and analytic solutions. One critical thing we saw was the need to help deliver a unified, clear, and actionable view of what they had and how to manage it. We went through quite a few different brands to look for our core unifying technology, including brands such as ManageEngine, Solar Winds, and big brands such as CA and HP, just as examples. We were looking for a product that would allow us to customize it and promote the methodology we wanted to put forward without compromising our ability to collect information from different vendors.

Once the data was all collected, ScienceLogic could also process it, qualify the data, and—the cherry on the cake—translate events cleanly into action items for remediation. About ten years ago, we settled on ScienceLogic. ScienceLogic is a completely agnostic solution, with many capabilities to connect telemetry from all our current technology investments. At first, we didn't realize just how powerful and well-written it was. For instance, ScienceLogic can easily be adapted to a specific vertical, or a unique technical environment; as well as how easy it was to create

threshold values and leverage third-party mechanisms to collect metrics through their REST APIs. Moreover, once the data was all collected, ScienceLogic could also process it, qualify the data, and—the cherry on the cake—translate events cleanly into action items for remediation.

How did ScienceLogic's dependency mapping play into the picture?

Dependency mapping was key. We could build up applications and services into different groups, tiers, and layers. For instance, we could evaluate one web service at a time or assess it as part of a larger business service. ScienceLogic's solution provides us the flexibility to capture what we need both methodologically and dynamically. This includes the dynamic requirements for microservices and IT sprawl. Its breadth of integrations enables our dependency insights to reflect in depth upon unique infrastructure and application environments.

Can you say more about third-party sources? How does ScienceLogic play there?

ScienceLogic is not only good at collecting its own data. It's good at gathering information from other systems into a centralized, core actionable environment. We prefer to leverage our own selection of critical management and monitoring tools, since we have done careful evaluations for their effectiveness and we know what they can do. This includes not only SNMP, but also NetFlow data, wire data, and APM data that all come in from the other 18 different toolsets in our portfolio, some of which are very specific to a unique environment.



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Where do you see this going in the future?

We're already starting to see a lot of interest in self-healing, where active changes to the configuration are being made based on well-documented issues or changes—automations can be triggered directly or indirectly through ScienceLogic. Of course, people are still hesitant to let the software take control of itself. We're already enriching events with automation in a way that mirrors what an engineer would do when facing the same problem. It's all about being able to respond more quickly.

In the future, we are looking to extend this automation not only to those incidents where the cause is easily known, such as an 80% rise in CPU utilization, but to incidents like attacks when you may have only a small uplift in CPU utilization across a wide number of systems that can be identified and responded to swiftly.

ScienceLogic's machine learning is central to this process, as we build toward an AlOps-centric management suite.

ScienceLogic's machine learning is central to this process, as we build toward an AIOps-centric management suite.



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Corporate Headquarters:

1995 North 57th Court, Suite 120 Boulder, CO 80301 Phone: +1 303.543.9500 Fax: +1 303.543.7687 www.enterprisemanagement.com

